# REMARKS

Reconsideration of the rejection of claims 24-44 under 35 USC §102(b) is respectfully requested on the grounds that U.S. Patent No. 5,970,232 (Passint) clearly does not disclose a cluster configuration having n dimensions in which each cluster node is connected to **two other cluster nodes** in each of the n dimensions, such that each cluster node is connected to other cluster nodes by **2*n internal links**.

The 2*n internal link configuration is illustrated in Fig. 4 of the present application and described, for example, in paragraph [029] of the specification as originally filed:
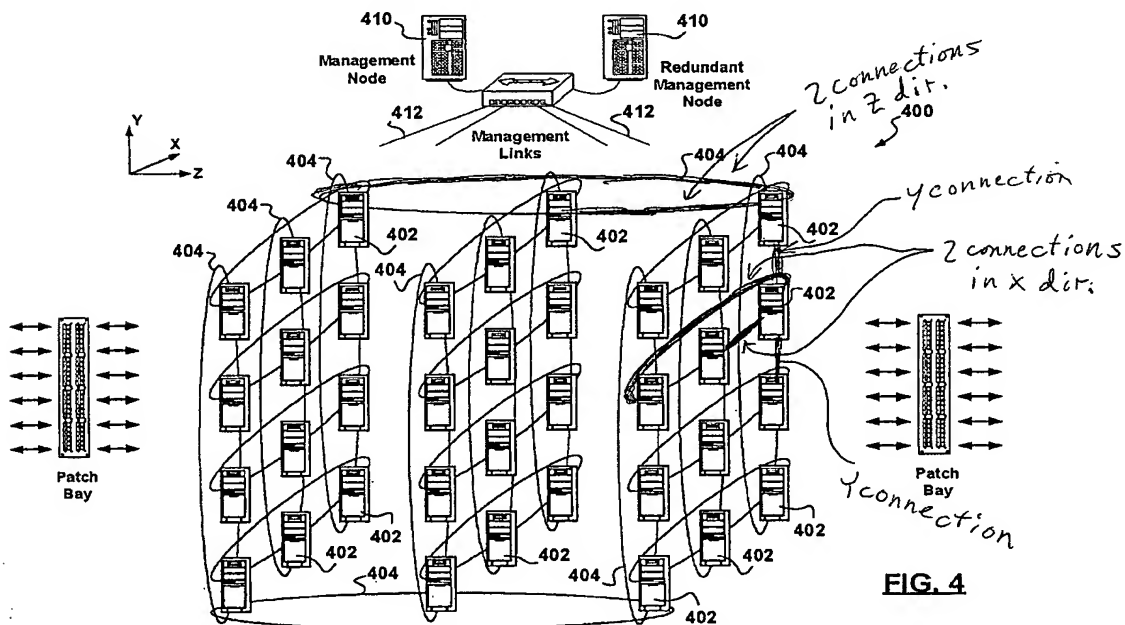
FIG. 4

As illustrated in Fig. 4, each of the nodes 402 is connected to two other nodes in each of three dimensions, with the result that there are six internal connections for each node (3 dimensions * 2 connections).

In contrast, Passint patent discloses one internal interconnection in each dimension plus one additional express link, for a total of three interconnections for each node in a two dimensional configuration (Fig. 4) and four interconnections for each node of a three dimensional configuration (Figs. 5-8), *i.e.*, **n + 1 internal interconnections for each node**. For example, as described in col. 7, lines 17-30 of the Passint patent, Fig. 5 shows a three dimensional configuration in which node 2 is connected to nodes 1, 3, and 5 by three router links RL and to node 7 by an express link EL (links PP are <u>external</u> links to two different routers):
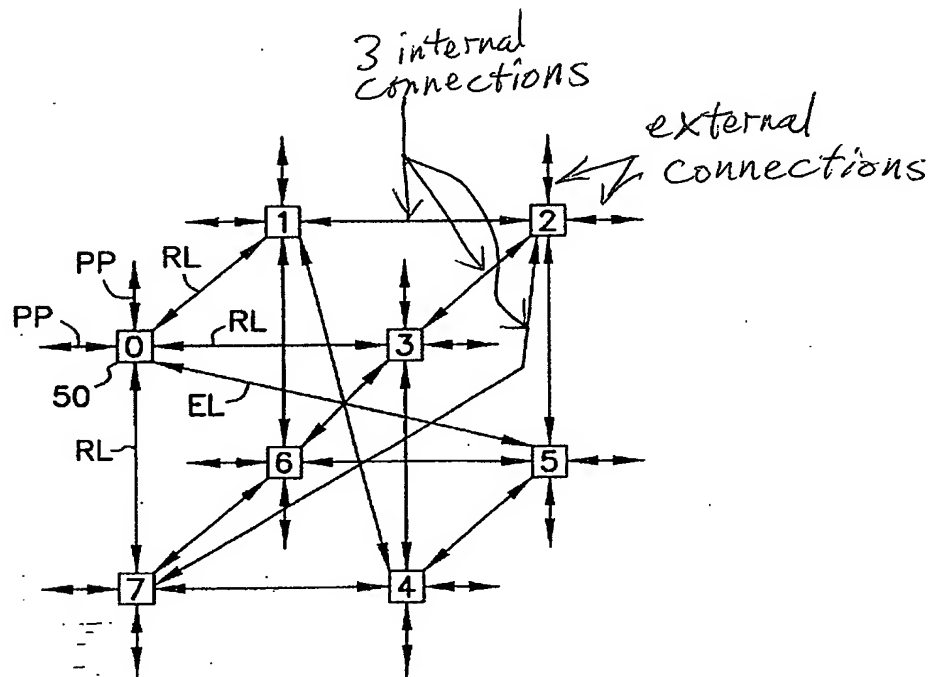

FIG. 5

None of the configurations illustrated in the Passint patent involves a configuration in which each node is connected to **two other nodes** *in the same dimension* and in which each node therefore is connected by **2*n internal links** rather than **n + 1 internal links**.

The differences in the numbers of connections for each node is **not merely a matter of design choice**. Instead, by connecting each cluster node by internal links to just two other nodes in each dimension, the claimed invention achieves a **scalability** that is not possible with the configurations illustrated in the Passint patent, while providing for a high level of **path diversity** to enable internal routing around defective or inoperative nodes. In particular, as explained in paragraph [29] of the present application, it is possible to increase the routing capacity substantially linearly by simply adding n-1 (n minus 1)dimensional slices of router cluster nodes to the "cluster router." In other words, the architecture of the cluster router of the claimed invention has the advantage that increasing the routing capacity does not change in the basic input/output configuration of individual nodes, with the result that the cluster nodes can utilize the same basic programming irrespective of how many cluster nodes are included in the cluster router.

Because the claims now recite a specific cluster router configuration that is not disclosed or suggested by the Passint patent, withdrawal of the outstanding rejection and expedited passage of the application to issue is requested.

Respectfully submitted,

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Date: April 29, 2008

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